

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TENNESSEE
NORTHERN DIVISION**

CHARLES TIPTON, et al.,)	
)	
Plaintiffs,)	No. 3:15-CV-311-TAV-CCS
)	
v.)	
)	
CSX TRANSPORTATION, INC., et al.,)	
)	
Defendants.)	

**DEFENDANTS' JOINT BRIEF IN SUPPORT OF THEIR MOTION TO EXCLUDE
PLAINTIFFS' EXPERT, ALAN J. BLACKWELL**

I. INTRODUCTION

The use of bearing detectors installed directly on railroad tank cars has not been accepted in the railroad industry, nor has Union Tank Car Company (“UTC”) ever installed such a device on any of its tank cars. Nevertheless, Plaintiffs allege that UTC was negligent in failing to install an onboard hot bearing detector on the railroad tank car that is the subject of this lawsuit. Alan J. Blackwell is a former railroad track inspector and roadmaster who has never designed, engineered, constructed, or performed maintenance either on a railroad tank car or a hot bearing detector. Yet he opines that UTC should have installed such a device on UTLX 901717 (the “Tank Car”).

Blackwell also opines in his Expert Report that defendant CSX Transportation, Inc. (“CSXT”) failed to establish a systematic defect detection method that was “accurate, reliable, and timely” in detecting abnormal temperatures of wheel bearings. Among other criticisms, Blackwell states that CSXT’s placement of hot bearing detectors every 20 to 25 miles of track throughout most of its system to detect abnormal temperatures is “much too far apart.” He also offers an opinion as to whether the train crew should have seen alleged sparking from the

derailed train car while operating the train 2,450 feet away.

Blackwell is unqualified to offer an expert opinion in this case about any of these subjects.

His opinion on onboard hot bearing detectors should be excluded pursuant to *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 589–95 (1993) because (1) his opinion is not based on reliable engineering or scientific literature, and it lacks a reliable methodology; (2) he has not conducted any testing on onboard hot bearing detectors, nor does he understand how they work; (3) the use of onboard hot bearing detectors have not been generally accepted in the railroad industry; and (4) his opinion is not based upon his scientific research or technical work, but instead is offered solely for this lawsuit.

Blackwell's opinions on CSXT's defect detector system and on whether the train crew should have noticed sparking should be excluded under *Daubert* for the same reasons. Blackwell is wholly unqualified to opine on these subject matters and his opinions are not based on reliable methods or data; rather they are unsupported and speculative.

II. FACTS

Blackwell's formal education ended in high school. (Deposition of Alan J. Blackwell, attached as Ex. 1 ("Blackwell Dep."), 33:25-34:1). He received a G.E.D. in 1970. (*Id.*) His work in the railroad industry began in 1971 as a track laborer where he worked on track. (*Id.*, 34:12-25.) His work in the rail industry was limited to the "world of track." (*Id.*, 37:17-25.) This includes everything in the right-of-way of the track. (*Id.*). His curriculum vitae states his expertise includes the areas of "track structures, track appliances, safety training, FRA regulations, highway grade crossings, bridge work, and derailment investigations." (Alan J. Blackwell curriculum vitae, attached as Ex. 2 ("Blackwell CV").)

A. Facts Relevant to UTC's Argument

While Blackwell may be experienced in the area of railroad track, he has no experience in the design, construction or safety of railroad tank cars. He has never worked for a manufacturer of tank cars. (Blackwell Dep., 170:9-11.) He has never designed, built, engineered, or manufactured tank cars, wheel sets for tank cars, bearings for tank cars, or hot bearing detectors for tank cars. (*Id.*, 170:12-171:21.) He has no experience or training in any of these areas. (*Id.*) He has never performed research into hot bearing detectors nor the wireless communication technology required for these detectors to work. (*Id.*, 173:2-9.) He has never tested onboard hot bearing detectors to see how they work. (*Id.*, 197:24-198:1.) He has never tried to determine the types of errors that may come from such sensors. (*Id.*, 197:11-23 & 198:2-5.)

He has never observed an onboard hot bearing detector in operation. (*Id.*, 174:3-5.) He has never reviewed any literature regarding onboard hot bearing detectors outside of this litigation. (*Id.*, 174:6-13.) He has never studied the effectiveness of these detectors. (*Id.*) Blackwell does not know whether the use of onboard hot bearing detectors have been accepted in the industry or whether the use of detectors have been approved by any railroad regulatory body including the Federal Railroad Administration (FRA) or the Association of American Railroads (AAR). (*Id.*, 174:14-19.) Blackwell could not identify the number of tank cars in operation nor how many of these tank cars used onboard hot bearing detectors in July 2015 (at the time of the derailment). (*Id.*, 175:6-16.)

The sole basis for Blackwell's opinions regarding hot bearing detectors are found in three exhibits to his deposition.¹ (*Id.*, 198:21-199:10.) Exhibit 37 is a copy of a website page from a company called IONX, dated February 17, 2016. (*Id.*, Ex. 37.) Exhibits 36 and 38 are

¹ Blackwell purports to rely upon the testimony of UTC employee Joe Perez on the issue of onboard hot bearing detectors; however, when questioned in his deposition, he could not point to any of Mr. Perez' testimony to support his opinions. (Blackwell Dep., 189:10-190:7.)

PowerPoint presentations describing “Telematics.” (*Id.*, Exs. 36 & 38.) The presentation materials briefly discussed testing of an onboard hot bearing detector manufactured by IONX (not UTC) and installed on tank cars owned by Dow. (*Id.*) Blackwell did not know who installed the detectors, who paid for the detectors or whether the detectors were ever used commercially or on cars that actually transported materials. (*Id.*, 190:11-23.) He did not know whether the specific detectors had been approved by the FRA or AAR (*Id.*, 190:24-191:4.) Blackwell could not provide any information about how much testing was performed on the detectors or the results of the testing that was performed. (*Id.*, 191:21-25.) Likewise, he had no information regarding how many of these IONX detectors had been sold or were in use prior to the time of the accident. (*Id.*, 193:14-21.)

Blackwell failed to provide even a rudimentary understanding on how onboard hot bearing detectors were designed or worked. He did not know what materials were used to make the detectors. (*Id.*, 193:22-194:4.) He claims the signal from the detector went to someone onboard the train and referred to exhibits 36-38. (*Id.*, 194:21-195:7.) Nothing in those exhibits state that anyone on board the train received the data from the sensor. (*Id.*, Exs. 36 & 38.) Blackwell could not identify how the signal was sent from the sensor to a person on the train. (*Id.*, 195:8-19.) He stated (without any documentation) that the hot bearing detector was providing temperature readings in real time (constantly transmitting data). (*Id.*, 195:20-24.) When asked how the sensor would be powered in order to transmit the data, he “thought they talked about it having a battery of some sort or cellular charge to it of some sort.” (*Id.*, 195:25-196:14.) When pressed on what the battery life on such a sensor would be, he stated he did not know. (*Id.*, 196:24-197:2.)

Blackwell was asked whether the tests on the IONX hot bearing sensors demonstrated that they worked, he replied “I don’t recall that.” (*Id.*, 197:11-15.) He did not know what

problems had been experienced in using these types of sensors. (*Id.*, 197:16-19.) He could not provide any information on the error rate of the sensors. (*Id.*, 197:20-23.)

Blackwell summed up the totality of the support for his conclusions as follows:

Q. In forming your opinion that you've expressed in your reports - - -

A. Right.

Q. -- with regard to onboard hot bearing detectors, is the methodology you used to come to that conclusion is reviewing the three exhibits [exhibits 36-38] I put in front of you and Joe Perez's deposition?

A. Yes.

Q. You haven't done anything else to come to that conclusion?

A. Correct.

Q. And you've never done any independent research whatsoever on the topic of onboard hot bearing detectors?

A. Again, no.

(*Id.*, 198:21-199:10.)

B. Additional Facts Relevant to CSXT's Argument

Blackwell likewise has no experience locating or spacing hot box detectors. The closest that Blackwell has ever come to such a system is ensuring that the railroad track surface was maintained properly so that the detectors would work. (*Id.*, 43:9-23.) He is entirely unfamiliar with a railroad's ability to trend the temperatures on axles from detector to detector in real time to assist in the detection of abnormal temperatures. (*Id.*, 74:14-75:5.) Nor is he qualified to offer any opinion specific to this case—Blackwell has no evidence that any defect detector over which the train crossed malfunctioned or otherwise failed to provide accurate temperature data. (*Id.*, 59:4-6; 73:3-8.)

Blackwell has never walked or high railed the track at issue in this case. (*Id.*, 13:19-14:6.) He has never been in a geometry car or train to traverse the same area. (*Id.*, 14:10-14.) The only inspections that Blackwell undertook for this case occurred on tracks at Singleton switch and

certain crossings along the nine mile stretch of track at issue. (*Id.*, 7:14-13:12.) Blackwell drove from crossing to crossing. (*Id.*)

III. LEGAL STANDARD

Under Rule 702, the proponent of expert testimony bears the burden of showing by a preponderance of the evidence that (i) the expert is qualified, (ii) the testimony is reliable, and (iii) the testimony is relevant and will assist the jury. Fed. R. Evid. 702; *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 589–95 (1993); *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 147–52 (1999). As a prerequisite to admissibility, Plaintiffs’ expert must be qualified to offer relevant testimony and his opinions must be supported by a valid scientific or technical basis. Fed. R. Evid. 702. To be qualified, an expert must possess “knowledge, skill, experience, training, or education” regarding the topics of his testimony. Fed. R. Evid. 702. To be reliable, expert testimony must be “based on sufficient facts or data,” and it must be “the product of reliable principles and methods” that have been “reliably applied” to the “facts of the case.” *Id.*

In *Daubert*, and later in *Kumho Tire*, the Supreme Court charged trial judges with the responsibility of acting as gatekeepers to exclude irrelevant or unreliable expert testimony. *Johnson v. Manitowoc Boom Trucks, Inc.*, 484 F.3d 426, 429 (6th Cir. 2007) (quoting Advis. Comm. Notes to Fed. R. Evid. 702); *see also Daubert*, 509 U.S. at 592-95; *Kumho Tire*, 526 U.S. at 141-42. This gatekeeping role is critical, because expert testimony “can be both powerful and quite misleading because of the difficulty in evaluating it.” *Daubert*, 509 U.S. at 595.

Daubert provides a nonexclusive list of guideposts a trial court may use in its gatekeeping function: (1) whether the expert’s “theory or technique . . . can be (and has been) tested;” (2) whether the theory or technique “has been subjected to peer review and publication;” (3) whether there exists a high “known or potential rate of error” for a particular technique and the existence of “standards controlling the technique’s operation;” and (4) whether the theory or

technique enjoys “general acceptance” within the relevant community. *Daubert*, 509 U.S. at 593-94. The Supreme Court later instructed that these factors are as applicable in the context of engineering testimony as in scientific testimony. *Kumho Tire*, 526 U.S. at 151.

The Sixth Circuit has adopted a fifth guidepost that is not explicitly stated in *Daubert* or *Kumho*: “the extent to which [the expert’s] opinions were prepared in the context of litigation.” *Johnson*, 484 F.3d at 430; *see also Kumho Tire*, 526 U.S. at 150 (acknowledging the four *Daubert* guideposts do not constitute “a definitive checklist or test.”).

Ultimately, the “gatekeeping” role requires the Court to perform a two-part analysis with respect to the admissibility of expert testimony. First, the Court must determine whether the expert is sufficiently qualified “by reason of training, education, or experience” to render opinions in front of a jury. Fed. R. Evid. 702; *Daubert*, 509 U.S. at 592; *Pride v. BIC Corp.*, 218 F.3d 566, 577-78 (6th Cir. 2000). If somehow satisfied that the experts are qualified, then this Court needs to examine the opinions offered by each expert and the bases for those opinions in order to determine as a threshold matter whether the opinions are sufficiently reliable to be admissible. *Id.* The decision whether to admit expert testimony rests within this Court’s sound discretion. *General Elec. v. Joiner*, 522 U.S. 136, 143 (1997); *see also Nelson v. Tenn. Gas Pipeline Co.*, 243 F.3d 244, 251 (6th Cir. 2001).

IV. ARGUMENT

A. Blackwell Admitted That He Is Not Qualified to Offer an Opinion Regarding Onboard Hot Bearing Detectors.

An expert’s role is to explain complex scientific issues to a jury based on knowledge and experience with the issues gained outside the context of litigation. *See, e.g., Pride*, 218 F.3d at 577-78 (finding that an expert’s qualifications are not determined in the abstract but in light of the specific questions at issue). As used in Rule 702, “knowledge . . . connotes more than subjective belief or unsupported speculation.” *Daubert*, 509 U.S. at 590. “[N]o matter how good

experts' credentials may be, they are not permitted to speculate.” *Tamraz v. Lincoln Elec. Co.*, 620 F.3d 665, 671 (6th Cir. 2010) (internal citations omitted). “Nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert.” *Joiner*, 522 U.S. at 146.

Blackwell is utterly unqualified to offer the jury opinions regarding hot bearing detectors as he lacks the necessary education and training to testify as an expert on this topic. His testimony in this regard amounts to nothing more than sheer speculation. Blackwell has no experience with tank cars or onboard hot bearing detectors outside this case. He has never designed, built or tested onboard hot bearing detectors. (Blackwell Dep., 170:12-171:21.) Similarly, he has never conducted research on onboard hot bearing detectors. (*Id.*, 173:2-9.) In fact, he has absolutely no idea how the devices work – including the answers to elementary questions such as whether they provided real time data and how and to whom the data was transmitted. (*Id.*, 194:5-7; 195:8-196:10.)

Likewise, he has never built, designed, tested or performed research on railroad tank cars or their related safety equipment. (*Id.*, 170:9-171:21.) Blackwell’s background is in the areas of railroad track structures; appurtenances; railroad and railway infrastructure; and construction, maintenance, inspection, and investigation of those areas. (Blackwell CV.) He has no prior experience with onboard hot bearing detectors whatsoever.

Blackwell is a railroad track person attempting to offer “expert” opinions on a technology he does not understand. A road maintenance supervisor cannot read an article on Tesla self-driving automobiles and purport to be qualified to offer expert opinions on self-driving technology merely on the basis he works on roads. Blackwell is similarly unqualified to offer opinions regarding on-board hot bearing detectors despite his background in railroad track maintenance. He lacks the necessary education and training to qualify as an expert on this topic.

Fed. R. Evid. 702; *Daubert*, 509 U.S. at 590; *Pride*, 218 F.3d at 577-78. On this basis alone, the Court should exclude Blackwell's opinion regarding the use of onboard hot bearing detectors.

B. Blackwell's Opinions Regarding Onboard Hot Bearing Detectors Are Also Inadmissible Because They Are Not Reliable.

Blackwell further earns the dubious distinction of failing to meet any of the criteria used by courts in the Sixth Circuit to determine the reliability of expert opinions. Blackwell's opinion is not based on engineering or scientific literature, and it lacks a reliable methodology. He has not conducted any testing on onboard hot bearing detectors and, as clearly demonstrated by his testimony, he does not understand how they work. Blackwell cannot establish the use of onboard hot bearing detectors have been generally accepted in the railroad industry. Finally, his opinion is not based upon his scientific research or technical work, but instead is offered solely for this lawsuit.

Blackwell's opinion is not based on engineering or scientific literature. Consequently, Plaintiffs must present objective, verifiable evidence that Blackwell's opinion is based upon "scientifically valid principles." *Daubert v. Merrell Dow Pharmaceuticals*, 43 F.3d 1311, 1318 (9th Cir. 1995) ("*Daubert II*"). But, Blackwell fails to provide a single piece of engineering or scientific data to support his conclusion that UTC should have installed on-board hot bearing detectors on the Tank Car. His "methodology" consisted of reviewing the information in exhibits 36-38 and forming the conclusion that the detectors should have been installed. (Blackwell Dep., 198:21-199:10.) This is neither "scientific" nor a "methodology." Blackwell was unable to articulate an understanding of what he read, much less describe the technology and how it worked. (*Id.*, 189:10-190:7; 198:21-199:10.) His "opinion" is not based on science or engineering and constitutes mere speculation.

Similarly, Blackwell has never tested an onboard hot bearing detector. (*Id.*, 197:24-198:1.)

He has never designed or built a detector nor does he know how they work. (*Id.*, 171:13-21;

194:5-7.) His failure to test the device is fatal to his opinion. *Johnson*, 484 F.3d at 431 (holding, while “testing is not an absolute prerequisite to the admission of expert testimony,” if testing is feasible, “conclusion based only on personal opinion and experience do not suffice.”).

Onboard hot bearing detectors have not been accepted by the railroad industry, nor are they currently in use in interchange. (Wolf Railway Consulting Report, dated July 7, 2017, attached as Ex. 3 (“Wolf Report”), p.17, ¶25; UTC’s Rule 26(a)(2) disclosure of Robert Toms, Director, Research & Development for UTC, attached as Ex. 4, p.5-6; Deposition of Craig Norris, attached as Ex. 5 (“Norris Dep.”), 63:14-23.) In fact, Plaintiffs’ bearing expert, James D. Whelan, admitted as much. (Deposition of James D. Whalen, attached as Ex. 6 (“Whalen Dep.”), 216:16-21.) UTC has never installed such a device on any of its tank cars, nor have they been requested by UTC’s customers. (Ex. 4, p.5.) This is largely because the devices have not proceeded beyond the testing phase, and the existing wayside “hot box” detectors are very accurate. (Norris Dep., 63:14-23; 251:19-24, Whelan Dep., 216:16-21.) The fact that onboard hot bearing detectors have not been generally accepted in the industry is also fatal to Blackwell’s opinion. *Daubert*, 509 U.S. at 594; *Johnson*, 484 F.3d at 433-34.

Blackwell’s opinion is likewise unreliable because it was prepared solely for this lawsuit. “[E]xpert testimony prepared solely for purposes of litigation, as opposed to testimony flowing naturally from an expert’s line of scientific research or technical work, should be viewed with some caution.” *Johnson*, 484 F.3d at 434 (citing *Daubert II*, 43 F.3d at 1317-18). This skepticism is based, in part, on the fact that expert witnesses are not necessarily always unbiased scientists, since one party pays for the expert’s testimony. *Johnson*, 484 F.3d at 434. “If the proffered expert testimony is not based on independent research, the party proffering it must come forward with other objective, verifiable evidence that the testimony is based on ‘scientifically valid principles.’” *Daubert II*, 43 F.3d at 1318.

Here, Blackwell's opinion was created solely for this litigation; it does not flow naturally from his current or prior research in the area of onboard hot bearing detectors. To the contrary, Blackwell readily admits he has no prior experience in this field and has never performed any research related to on-board hot bearing detectors outside the review of the materials provided to him by Plaintiffs' counsel. (Blackwell Dep., 174:3-13; 197:24-199:10.) He has never tested, built, or researched onboard hot bearing detectors; he has no idea how they work, or if they work. In short, Blackwell is an expert-for-hire who lacks the necessary training, education, or experience to render an opinion regarding onboard hot bearing detectors. This is not what *Daubert* and its progeny contemplate; this is the type of practice that *Daubert* seeks to end.

C. Blackwell Is Not Qualified to Offer an Opinion Regarding CSXT's System for Detecting Abnormal Temperatures of Wheel Bearing Journals; His Opinions are Unreliable.

As for CSXT, Blackwell opines that "CSXT failed to comply with its methods for detecting abnormal temperatures of wheel bearing journals by ensuring that it was accurate, reliable, and timely to prevent potential disasters" (Blackwell Consulting, Inc. Report dated May 15, 2013, attached as Ex. 7 ("Blackwell Report"), p.11.) As stated in CSXT's Memorandum in Support of its Motion for Summary Judgment, in an effort to prevent overheated journal bearings from causing derailments, railroads, including CSXT, utilize hot box detectors, which are sensors spread along the rail lines designed to detect the presence of overheated journal roller bearings. (CSXT Mem. In Support of Motion for Summary Judgment (Doc. 178), p.4, ¶8.) Among other criticisms related to CSXT's hot box detector system, Blackwell faults CSXT for placing hot bearing detectors every 20-25 miles of track throughout its rail system. (Blackwell Report, p.10.) According to Blackwell, "this distance is much too far apart to prevent catastrophic bearing failure...." (*Id.*)

Blackwell is, admittedly, unqualified to opine on any issue related to CSXT's hot box detector system, including the location and spacing of detectors. When asked whether the technology and functioning of hot box detectors are within his area of expertise, Blackwell disclaimed any expertise: "[o]ther than to say that I know they are supposed to detect defects in the wheels and journals of cars." (Blackwell Dep., 56:9-20.) This general knowledge is not expertise. As for spacing, he has no experience on locating or spacing hot box detectors. The closest that Blackwell has ever come to such a system is ensuring that the railroad track surface was maintained properly so that the detectors would work. (*Id.*, 43:9-23.) His lack of expertise in hot box detectors is evidenced through his lack of knowledge of the most important factors to consider in their location and spacing. (*Id.*, 61:2-23 (stating the most important factors are topography, drainage, train traffic and other instances of bearing burn off).) He did not name the most important factor, speed of train. (*See* Wolf Report, p.9-10.) He does not know what "bearing trending" means—the use of trending algorithms to track individual bearings temperatures as the train moves past a series of detectors. (Blackwell Dep., 69:6-22.) Because it uses trending algorithms, CSXT does not need to rely solely on detector spacing—it can detect an upward trend in bearing temperature over a long distance of track. (*See* Wolf Report, p.10.) Blackwell admits this would be a "good thing," apparently having no idea that CSXT employs such a system. (Blackwell Dep., 70:10-25.) He does not know what an "automatic equipment identification system" is—an integral part of many detector systems since the 1980s. (*Id.*, 72:20-22.)

Because Blackwell is admittedly unqualified to opine in this area, his opinions are unreliable and speculative. They are unsupported by any facts, analysis, or scientific data. While Blackwell claims that CSXT needs a systematic defect detection method that is "accurate, reliable, and timely," Blackwell admits that he has no evidence—none—that CSXT does not

have such a system or that any defect detector over which the train at issue in this case crossed actually malfunctioned. (*Id.*, 56:24-57:5; 59:4-6; 73:3-8.) That’s because CSXT’s system worked. (*See* Declaration of Kimberly Bowling (Doc. 178-10), ¶6 (“No defect detector found of excessive temperature, upward temperature trends, or other causes for concern related to the tank car’s bearings prior to the sudden failure of one of one bearing on UTLX 901717”).)

As for his opinions related to the detector’s spacing, Blackwell is unable to cite any rule, regulation, or industry standard in support of his opinion that CSXT’s defect detectors were (and are) spaced too far apart. While he does state that “other Class 1 railroads locate their Hot Bearing Detectors at most 15 miles apart,” he provides no support in his report whatsoever for this assertion—not a single citation or reference, nor does he cite any requirement governing the spacing or requiring spacing at a particular interval. (Blackwell Report, p.10.) The documents that Blackwell characterized as “railroad guides to hot box detector spacing” at his deposition (Exhibit 8-11) in support of his opinion are nothing more than irrelevant timetable excerpts and one incident report. (Blackwell Dep., Exs. 8-11.) These documents provide no foundation as to how (and why) hot box detectors were spaced on other railroads. His opinion is just his personal view, entirely unsupported, and thus, entirely unreliable.

D. Blackwell Is Not Qualified to Offer an Opinion Regarding The Causes, Locations, Levels, Intensity, and Visibility of Sparks from the Derailed Tank Car; His Opinions are Unreliable.

Blackwell also concludes in his report that “. . . there would have been several points during the 9 miles the CSX crew dragged the derailed tank car where the sparks would have been visible to the crew.” (Blackwell Report, p.6.) To support his opinion, Blackwell relies upon the sight line analyses performed by plaintiffs’ expert Brad Mathison. (*Id.*) But while Blackwell insists that sparks would have been visible to the train crew at various points

along the 9 miles of track, (*id*), he provides no scientific evidence or foundation to back up his opinion.

Blackwell is unqualified to provide an opinion on this subject area. While he may be experienced and well-versed in the area of railroad track and track inspection, he has limited experiences (if any) in train operations and handling—certainly none that would qualify him to opine on whether sparking occurred and whether a train crew should have seen alleged sparking from the derailed train car while operating the train 2,450 feet away. (Blackwell Dep., 50:10-52:8.)

Blackwell's opinions on sparking are unreliable and speculative. Blackwell opines that "based on the eyewitness reports and [his] experience, the dragging metal sideframes and bolster on the tank car hitting the concrete crossties and metal switches . . . would have created highly visible sparks, especially because it was night." (Blackwell Report, p.5; Blackwell Dep., 108:16-25.) But Blackwell has not proven with any data, experimental evidence, or analysis that sparks would be emitted each time the side frame hit a concrete tie. Nor has it been proven how many sparks would be emitted, which direction they would travel, how large the spark trail would be, and how much light the sparks would emit. Blackwell has not produced any calculations that would quantify the impact force of the side frame or bolster on the concrete tie. He has not shown how much kinetic energy is required to cause a spark emitted during impact that lasts only one to two milliseconds. (*See* Wolf Report, p.12.) There is no proof from photography or otherwise that evidences actual sparking on the night in question at the nine locations examined by Plaintiffs' experts.

As for whether the train crew would have seen the alleged sparking from 2,450 feet away, Blackwell's opinions are similarly unreliable. Blackwell never viewed the site lines that he opines on, whether from a moving train (as the crew would have) or otherwise. In

fact, the only inspections that Blackwell undertook for this case occurred on tracks at Singleton switch and at various crossings along the 9 mile stretch of track at issue. (Blackwell Dep., 7:14-13:12.) All of his opinions on the visibility of sparking are based on the switch and crossings inspections, Mr. Mathison's photography, testimony of an eyewitness, and his "knowledge and experience." (*Id.*, 161:12-162:17.) And Blackwell disavows any opinion about what the crew actually would have seen, rendering his opinion not only unreliable, but irrelevant. When asked whether his opinions on the visibility of sparking were from the standpoint of a crew member being inside the cab of a locomotive, Blackwell testified that he had no opinion on that question and, deferred to plaintiffs' other expert, Colon Fulk, on whether the crew would be in a position physically to see back that distance. (*Id.*, 162:18-25.) This statement underscores the unreliability of any Blackwell opinion on whether sparking would have been visible to the train crew along the railroad.

V. CONCLUSION

For the foregoing reasons, Defendants respectfully request that the Court exclude Mr. Blackwell's testimony under *Daubert* and the Federal Rules of Evidence.

Respectfully submitted,

/s/ April N. Ross

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CERTIFICATE OF SERVICE

I hereby certify that on August 15, 2017, a copy of the foregoing was filed electronically. Notice of this filing will be sent by operation of the Court's electronic filing system to all parties indicated on the electronic receipt. All other parties will be served by regular U.S. mail. Parties may access this filing through the Court's electronic filing system.

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